

Date: Sun, 28 Nov 93 01:10:50 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1395
To: Info-Hams

Info-Hams Digest Sun, 28 Nov 93 Volume 93 : Issue 1395

Today's Topics:

Calculating SWR

Daily Summary of Solar Geophysical Activity for 20 November

Daily Summary of Solar Geophysical Activity for 26 November

Email callbook server (2 msgs)

How useful are DSP units in noisy locations?

Mag Mount Paint Damage

Modem Software to Alert Many Pageers?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>

Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 27 Nov 1993 18:48:05 GMT

From: yuma!galen@purdue.edu

Subject: Calculating SWR

To: info-hams@ucsd.edu

In article <1993Nov26.200816.19512@combdyn.com> lawrence@combdyn.com (Lawrence *The Dreamer* Chen) writes:

>How do you calculate SWR? I have a power meter...and I can measure the forward
>and reflected power. How do I take the two values to determine the SWR?

$$1 + \text{SORT}(W_r/W_f)$$

$$VSWR = \frac{W_f}{W_r}$$

Where SQRT denotes the square root of (this), W_r is reflected power and W_f is forward power.

>Right now I have forward power of 5 Watts and reflected power of 0.1 Watts,
>what SWR would that correspond to?

I get 1.329:1 .

Galen, KF0YJ

Date: Sat, 20 Nov 1993 21:55:55 MST
From: dog.ee.lbl.gov!agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!
math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!adec23!ve6mgs!
usenet@network.ucsd.edu
Subject: Daily Summary of Solar Geophysical Activity for 20 November
To: info-hams@ucsd.edu

DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

20 NOVEMBER, 1993

/\/

(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 20 NOVEMBER, 1993

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 324, 11/20/93
10.7 FLUX=100.5 90-AVG=094 SSN=058 BKI=3312 1221 BAI=007
BGND-XRAY=B1.5 FLU1=3.7E+05 FLU10=1.2E+04 PKI=3411 2222 PAI=009
BOU-DEV=021,026,006,012,009,010,010,007 DEV-AVG=012 NT SWF=00:000
XRAY-MAX= C5.2 @ 0032UT XRAY-MIN= B1.2 @ 1919UT XRAY-AVG= B4.0
NEUTN-MAX= +002% @ 0945UT NEUTN-MIN= -002% @ 1145UT NEUTN-AVG= -0.3%
PCA-MAX= +0.1DB @ 1215UT PCA-MIN= -0.1DB @ 1900UT PCA-AVG= +0.0DB
BOUTF-MAX=55364NT @ 0231UT BOUTF-MIN=55346NT @ 1952UT BOUTF-AVG=55355NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+066,+000,+000
GOES6-MAX=P:+128NT@ 1836UT GOES6-MIN=N:-070NT@ 0951UT G6-AVG=+087,+019,-038
FLUXFCST=STD:105,110,110;SESC:105,110,110 BAI/PAI-FCST=010,010,020/012,015,035
KFCST=1115 4000 1112 2111 27DAY-AP=009,029 27DAY-KP=4222 1221 2235 6533
WARNINGS=*SWF
ALERTS==**245STRM:0613-0817UTC
!!END-DATA!!

NOTE: The Effective Sunspot Number for 19 NOV 93 was 25.0.

The Full Kp Indices for 19 NOV 93 are: 3+ 6- 2- 2o 3- 4- 3- 3o

SYNOPSIS OF ACTIVITY

Solar activity was low. Region 7618 (N07W31) remains the most impressive area on the disk. In white light, the region has decreased in area and spot number, but still retains its beta-delta configuration. New Region 7621 (S09E48) was numbered overnight. An area of interest to watch is on the east limb at N12 where an impressive bright surge was reported by Learmonth last night. All other areas/regions were stable.

Solar activity forecast: solar activity is expected to be low to moderate with Region 7618 the most likely candidate to produce C and M-class activity. A new, active region may rotate into view over the next few days and could also contribute to activity.

STD: X-ray imagery from the Yohkoh satellite showed a fairly strong and bright loop system at about 02:50 UTC from the region just beyond the east limb. A Yohkoh full-disk x-ray image showing the enhanced northeast limb emissions has been appended to this report.

The geomagnetic field has been at mostly unsettled levels. Since 09Z, the middle latitude field has been at quiet levels.

Geophysical activity forecast: the geomagnetic field is expected to be at mostly unsettled levels for the first two days of the period with active to minor storm conditions expected early on day three due to a favorably located coronal hole. The disturbance is expected to last only one day with levels forecasted to decrease to mostly unsettled thereafter.

Event probabilities 21 nov-23 nov

Class M	50/50/50
Class X	05/05/05
Proton	05/05/05
PCAF	Green

Geomagnetic activity probabilities 21 nov-23 nov

A. Middle Latitudes	
Active	20/25/35

Minor Storm	10/10/20
Major-Severe Storm	01/05/10

B. High Latitudes

Active	25/30/40
Minor Storm	10/15/30
Major-Severe Storm	01/10/15

HF propagation conditions were near-normal over the low and middle latitude paths. High and polar latitude paths experienced additional periods of below-normal propagation due primarily to periods of enhanced geomagnetic and auroral activity within the auroral zone. Conditions improved notably by the end of the day. Propagation conditions are expected to continue near-normal over the next 48 hours (through about 22 November inclusive). Activity could become gradually enhanced during the latter half of 22 November. On 23 November, a recurrent coronal hole is expected to increase levels of geophysical activity to near-storm levels which is expected to cause below-normal (poor to occasionally very poor) propagation for transpolar and transauroral paths. Middle-latitude night-sector paths may also be affected on 22 November.

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REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 20/2400Z NOVEMBER

NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7618	N08W31	338	0580	DKI	08	026	BETA-DELTA	
7620	N04E43	264	0000	AXX	01	001	ALPHA	
7621	S10E49	258	0000	AXX	00	001	ALPHA	

REGIONS DUE TO RETURN 21 NOVEMBER TO 23 NOVEMBER

NMBR	LAT	LO
NONE		

LISTING OF SOLAR ENERGETIC EVENTS FOR 20 NOVEMBER, 1993

BEGIN	MAX	END	RGN	LOC	XRAY	OP	245MHZ	10CM	SWEET	SWF
NO EVENTS OBSERVED										

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 20 NOVEMBER, 1993

BEGIN	MAX	END	LOCATION	TYPE	SIZE	DUR	II	IV
-------	-----	-----	----------	------	------	-----	----	----

20/ 0338 0403 0444 N08W20 LDE C1.3 66

INFERRRED CORONAL HOLES. LOCATIONS VALID AT 20/2400Z

ISOLATED HOLES AND POLAR EXTENSIONS

	EAST	SOUTH	WEST	NORTH	CAR	TYPE	POL	AREA	OBSN
48	S42W53	S44W61	S09W90	S09W90	023	ISO	NEG	010	10830A
49	N30E05	N18W04	N25W13	N38W05	316	ISO	POS	005	10830A

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
19 Nov:	0337	0342	0344	B3.1	SF	7618	N09W07			
	0359	0404	0408	B3.2						
	0710	0759	0828	B8.9						
	1845	2004	2051	B9.8						
	B2007	U2009	A2015		SF	7618	N12W12			

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

	C	M	X	S	1	2	3	4	Total	(%)
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Region 7618:	0	0	0	2	0	0	0	0	002	(40.0)
Uncorrellated:	0	0	0	0	0	0	0	0	003	(60.0)

Total Events: 005 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	Sweeps/Optical Observations
-----	-----	-----	-----	-----	-----	-----	-----	-----
	NO EVENTS OBSERVED.							

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

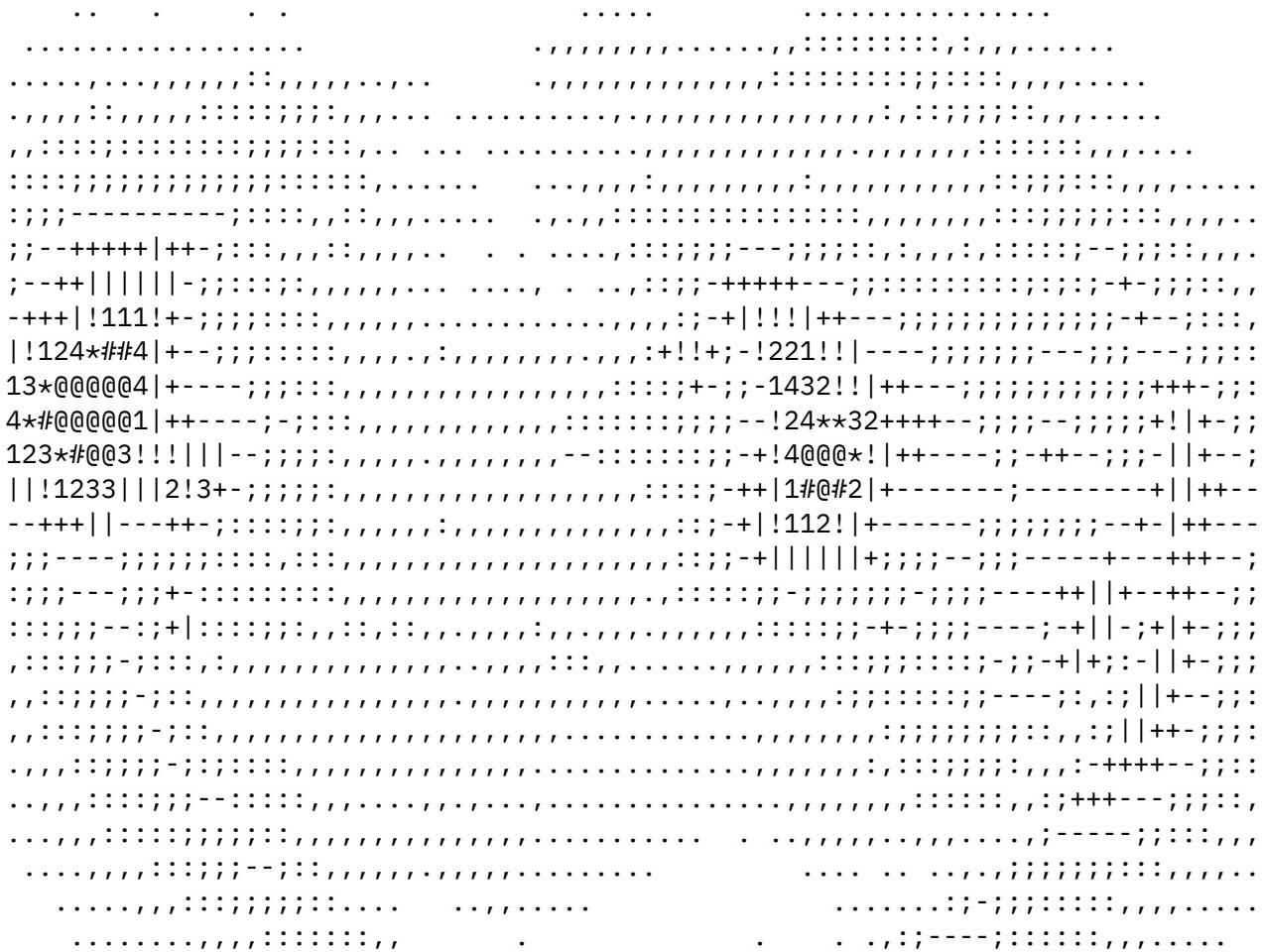
Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

SPECIAL INSERT: CURRENT X-RAY EMISSIONS FROM THE JAPANESE YOHKOH SPACECRAFT

20 November 1993, 02:50 UTC

North



South

KEY: East and west limbs are to the left and right respectively. Emission strength, from minimum to maximum are coded in the following way:

[space] . , : ; - + | ! 1 2 3 4 * # @

Units used are arbitrary, for illustrative purposes. Get "showasc.zip" from "pub/solar/Software" at the anonymous FTP site: xi.uleth.ca (IP # 142.66.3.29) to view these images on VGA screens.

** End of Daily Report **

Date: Fri, 26 Nov 1993 20:54:14 MST
From: swrinde!cs.utexas.edu!uwm.edu!spool.mu.edu!agate!library.ucla.edu!
news.mic.ucla.edu!unixg.ubc.ca!kakwa.ucs.ualberta.ca!alberta!ugc!nebulus!ve6mgs!
usenet@network.ucsd.edu
Subject: Daily Summary of Solar Geophysical Activity for 26 November
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

26 NOVEMBER, 1993

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(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 26 NOVEMBER, 1993

!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 330, 11/26/93
10.7 FLUX=093.2 90-AVG=094 SSN=052 BKI=2222 2242 BAI=009
BGND-XRAY=B1.5 FLU1=9.2E+05 FLU10=1.3E+04 PKI=2212 2342 PAI=009
BOU-DEV=018,012,013,010,015,018,043,017 DEV-AVG=018 NT SWF=00:000
XRAY-MAX= C2.1 @ 1606UT XRAY-MIN= B1.3 @ 2328UT XRAY-AVG= B2.3
NEUTN-MAX= +002% @ 2155UT NEUTN-MIN= -002% @ 1810UT NEUTN-AVG= -0.1%

PCA-MAX= +0.2DB @ 1545UT PCA-MIN= -0.3DB @ 2135UT PCA-AVG= +0.1DB
BOUTF-MAX=55364NT @ 1344UT BOUTF-MIN=55333NT @ 1826UT BOUTF-AVG=55357NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+064,+000,+000
GOES6-MAX=P:+130NT@ 1742UT GOES6-MIN=N:-055NT@ 0825UT G6-AVG=+085,+016,-028
FLUXFCST=STD:095,090,090;SESC:095,090,090 BAI/PAI-FCST=005,005,005/010,010,010
KFCST=3122 2112 3212 2122 27DAY-AP=005,007 27DAY-KP=2121 2122 1132 2223
WARNINGS=*SWF
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 25 NOV 93 was 42.0.
The Full Kp Indices for 25 NOV 93 are: 2- 1+ 1o 0+ 2- 2o 2- 3-

SYNOPSIS OF ACTIVITY

Solar activity was low with several C-class flares observed. New Region 7623 (S11E67) rotated onto the disk and produced a C2/SF flare at 26/1605Z. Region 7620 (N04W40) produced a C1 flare at 26/1712Z. All regions appear to be stable.

Solar activity forecast: solar activity is expected to be at low levels during the period.

STD: The latest Yohkoh image has been appended to this report.

The geomagnetic field has been at quiet levels for the past 24 hours. High latitudes reported isolated undisturbed levels during the period.

Geophysical activity forecast: the geomagnetic field is expected to be at quiet to unsettled levels.

Event probabilities 27 nov-29 nov

Class M	10/10/10
Class X	01/01/01
Proton	01/01/01
PCAF	Green

Geomagnetic activity probabilities 27 nov-29 nov

A. Middle Latitudes	
Active	05/05/05
Minor Storm	05/05/05
Major-Severe Storm	01/01/01

B. High Latitudes
Active 05/05/10
Minor Storm 01/05/05
Major-Severe Storm 01/01/01

HF propagation conditions were normal over all regions.
No changes are expected over the next three days, through 29
November inclusive. Normal propagation should persist over all
regions.

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REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 26/2400Z NOVEMBER

NMBR LOCATION LO AREA Z LL NN MAG TYPE
7620 N04W40 268 0280 ESI 12 017 BETA
7622 N13E06 222 0040 CS0 03 004 BETA
7623 S11E67 161 0030 HAX 01 001 ALPHA
7621 S09W30 258 PLAGUE

REGIONS DUE TO RETURN 27 NOVEMBER TO 29 NOVEMBER

NMBR LAT LO
NONE

LISTING OF SOLAR ENERGETIC EVENTS FOR 26 NOVEMBER, 1993

BEGIN MAX END RGN LOC XRAY OP 245MHZ 10CM SWEEP
NONE

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 26 NOVEMBER, 1993

BEGIN MAX END LOCATION TYPE SIZE DUR II IV
NO EVENTS OBSERVED

INFERRRED CORONAL HOLES. LOCATIONS VALID AT 26/2400Z

ISOLATED HOLES AND POLAR EXTENSIONS
EAST SOUTH WEST NORTH CAR TYPE POL AREA OBSN
51 S01E47 S13E32 N15E15 N35E42 202 ISO POS 023 10830A

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
25 Nov:	0009	0020	0037	C1.0	SF	7620	N04W14			
	0105	0105	0112		SF	7620	N05W14			
	0116	0117	0124		SF	7620	N03W15			
	0138	0145	0204	B9.7	SF	7620	N05W14			
	0343	0357	0406	C2.6						
	0458	0518	0527		SF	7620	N03W15			
	0534	0540	0555	C1.2	1N	7620	N03W17			
	0614	0621	0625	C5.7						
	0805	0809	0815	C2.1	SF	7620	N03W17			
	0902	0912	0918	C1.9	SF	7620	N04W19			
	1214	1223	1231	B7.5						
	1744	1754	1803	B3.9						
	2020	2027	2037	C1.8	SF	7620	N04W24			
	2251	2254	2256	B2.7						

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

	C	M	X	S	1	2	3	4	Total	(%)
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Region 7620:	5	0	0	8	1	0	0	0	009	(64.3)
Uncorrellated:	2	0	0	0	0	0	0	0	005	(35.7)

Total Events: 014 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	Sweeps/Optical Observations
-----	-----	-----	-----	-----	-----	-----	-----	-----
25 Nov:	0614	0621	0625	C5.7				III

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II = Type II Sweep Frequency Event

III = Type III Sweep
IV = Type IV Sweep
V = Type V Sweep
Continuum = Continuum Radio Event
Loop = Loop Prominence System,
Spray = Limb Spray,
Surge = Bright Limb Surge,
EPL = Eruptive Prominence on the Limb.

SPECIAL INSERT: CURRENT X-RAY EMISSIONS FROM THE JAPANESE YOHKOH SPACECRAFT

26 November 1993, 02:00 UTC

North



South

KEY: East and west limbs are to the left and right respectively. Emission strength, from minimum to maximum are coded in the following way:

[space] . , : ; - + | ! 1 2 3 4 * # @

Units used are arbitrary, for illustrative purposes. Get "showasc.zip" from "pub/solar/Software" at the anonymous FTP site: xi.uleth.ca (IP # 142.66.3.29) to view these images on VGA screens.

** End of Daily Report **

Date: 28 Nov 93 06:24:50 GMT
From: ogicse!uwm.edu!cs.utexas.edu!howland.reston.ans.net!noc.near.net!
news.delphi.com!usenet@network.ucsd.edu
Subject: Email callbook server
To: info-hams@ucsd.edu

In the last message I said that he (ko4rk, aka 44.62.0.122) might not pick up an Internet message from an .ampr. source. That should have read a NON-.ampr. source, that is, not from a packet BBS.

Also, there are other REQOTH servers all over the place. This is the only one I am sure of.

Again, hope this helps.
Jason!

Date: 28 Nov 93 06:19:52 GMT
From: ogicse!uwm.edu!cs.utexas.edu!howland.reston.ans.net!noc.near.net!
news.delphi.com!usenet@network.ucsd.edu
Subject: Email callbook server
To: info-hams@ucsd.edu

The only E-mail servers I know of are available on packet BBSs. You may want to try the following (It might work):

send a message to REQOTH@44.62.0.122 and in the SUBJECT of the message, put the callsign(s) of the station(s) you are looking for, separated only by spaces. Put nothing in the actual text section.

I'm not sure if he will pick up an Internet message from a .ampr. source,

but it might be worth a shot. You might also try a telnet to plan9.njit.edu 2000 or mudgate.imsa.edu 2000.

I hope I've answered your question with at least one of the options.

-=>Jason!<=-
JTRIOL0@delphi.com
kd4acg@k9iu.ampr.org (k9iu.#sin.in.usa.na)
kd4acg@wa4ong.ampr.org (wa4ong.va.usa.na)

Date: 25 Nov 1993 16:22:58 GMT
From: munnari.oz.au!sgiblab!swrinde!gatech!usenet.ufl.edu!mailer.acns.fsu.edu!
freenet2.scri.fsu.edu!friederw@network.ucsd.edu
Subject: How useful are DSP units in noisy locations?
To: info-hams@ucsd.edu

NIR-10 does a really good job for me here in Tallahassee. The recent
firmware upgrade did wonders for it--QRN almost disappears! 73

--

William A. "Bill" Frieder friedew@freenet.tlh.fl.us
N4QNF Packet Mail = N4QNF @ W1FJI
(904) 488-2381 days (904) 893-3738 till 9:30 P.M. EDT

Date: Fri, 26 Nov 1993 21:49:00 GMT
From: pacbell.com!UB.com!wetware!rhohan!express@ames.arpa
Subject: Mag Mount Paint Damage
To: info-hams@ucsd.edu

SMK>From: sknapp@iastate.edu (Steven M. Knapp) SMK>Organization: Iowa State University, Ames, IA SMK>In article <CGx7KB.FHq@srgenprp.sr.hp.com>
alanb@sr.hp.com (Alan SMK>Bloom) writes: SMK>>David Van Nuys (vannuysd@sonoma.edu) wrote: SMK>>: I notice that my two-meter mag mount is leaving rings on the paint SMK>of my SMK>>: trunk. Has anyone got any tips for preserving the paint and still SMK>using SMK>>: a mag mount? Try putting the base of the antenna into a plastic sandwich bag and e car. Steve Fleckenstein - Red Onion Express BBS - 914-342-4585 * OLX 2.1 TD * Paper clips are the larval stage of coat hangers. --- RBBSSMail v18.2 * Origin: Red Onion, Express Wawayanda, New York 914 342 4585 (100:911/7.0)

Date: 22 Nov 1993 03:05:00 GMT

From: dog.ee.lbl.gov!agate!howland.reston.ans.net!cs.utexas.edu!
geraldo.cc.utexas.edu!slip-3-1.ots.utexas.edu!user@network.ucsd.edu
Subject: Modem Software to Alert Many Pagers?
To: info-hams@ucsd.edu

Our local Amateur Radio Emergency Service (ARES) group needs some software that could notify all our pager-carrying members when an emergency happens.

Many of our members carry pagers for their jobs, and most of these are digital pagers. We need an application that would go down a list of pager phone numbers, dialing each, waiting until the phone is answered, then sending the TouchTones (r) for "14694". This number would be recognized by our members as meaning 146.94 MHz, the local ARES repeater frequency.

Has anyone seen an app (for PC or Mac) that can do this? Thank you.

= = = = =
- Miles Abernathy, N5K0B =
| |__ miles@mbs.telesys.utexas.edu =
_ | POB 7580, Austin TX 78713 =
\ * / University of Texas @ Austin =
\/ tel. (512) 471-6521 U.S.A. =
= = = = =

End of Info-Hams Digest V93 #1395
